



Helping You Live Healthier Every Day

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OFFICE OF PUBLIC HEALTH • Center for Health Policy, Information & Promotion

Bioterrorism Information for Medical Professionals

FAQ's - Medical Facts About Botulism

Features

A neuroparalytic illness characterized by symmetric, descending flaccid paralysis of motor and autonomic nerves, always beginning with the cranial nerves. Symptoms include double vision, blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness. If untreated, illness might progress to cause descending paralysis of respiratory muscles, arms and legs. Botulinum antitoxin (supplied by CDC) can prevent progression of illness and shorten symptoms in severe botulism cases if administered early.

Etiologic Agent

A potent neurotoxin produced from *Clostridium botulinum*, an anaerobic, spore-forming bacterium.

Incidence

In 1999, 174 cases of botulism were reported to the CDC. Of these, 26 were foodborne, 107 were infant botulism, and 41 were cases of wound botulism.

Sequelae

Death can result from respiratory failure. About 5% die. Recovery takes months. Those who survive may have fatigue and shortness of breath for years.

Transmission

Foodborne botulism follows ingestion of toxin produced in food by *C. botulinum*. The most frequent source is home-canned foods, prepared in an unsafe manner. Wound botulism occurs when *C. botulinum* spores germinate within wounds. Intestinal colonization botulism occurs when *C. botulinum* spores germinate and produce toxin in the gastrointestinal tract.

Risk Groups

All persons. Intestinal colonization botulism usually occurs in infants, and is often called infant botulism. Injection drug users are at increased risk for wound botulism.

Surveillance

In collaboration with state health departments, CDC maintains intensive surveillance for botulism in the United States. Every case of foodborne botulism is treated as a public health emergency because the responsible food, whether homemade or commercial, might still be available for consumption and could make unsuspecting persons ill.

Trends

Other vehicles of transmission include homemade salsa, baked potatoes cooked in aluminum foil, cheese sauce, garlic in oil, and traditionally prepared salted or fermented fish in Alaska. Wound botulism related to the use of black-tar heroin has increased, especially in California.

Challenges

Prompt recognition of clinical syndrome by physicians.

Opportunities

Clinician education. Consumer education about home canning. Educating Alaska natives about proper fermentation techniques. Applying tools of molecular biology.

Links

[Technical Information about Botulism](http://www.cdc.gov/ncidod/dbmd/diseaseinfo/botulism_t.htm)

http://www.cdc.gov/ncidod/dbmd/diseaseinfo/botulism_t.htm

[Level A Laboratory Guidelines for Identification of *Clostridium botulinum* Toxin](http://www.bt.cdc.gov/Agent/Botulism/cbo_la_cp_120601.pdf)

http://www.bt.cdc.gov/Agent/Botulism/cbo_la_cp_120601.pdf

[Packaging Protocols for Biological Agents/Diseases](http://www.bt.cdc.gov/labissues/PackagingInfo.pdf)

<http://www.bt.cdc.gov/labissues/PackagingInfo.pdf>

[Recognition of Illness Associated with the Intentional Release of a Biologic Agent](http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5041a2.htm)

<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5041a2.htm>

[Botulinum Toxin as a Biological Weapon: Medical and Public Health Management](http://www.bt.cdc.gov/linkdisclaimer.asp?a_gotolink=http://jama.ama-)

http://www.bt.cdc.gov/linkdisclaimer.asp?a_gotolink=http://jama.ama-

[Agents of Bioterrorism](http://www.bt.cdc.gov/roleofclinlab.asp)

<http://www.bt.cdc.gov/roleofclinlab.asp>